

Project Name: Sports Stats Master - <https://sportstatsmaster.herokuapp.com/>

Team 203-4: Dumpster Devs

Team Members: Makayla Johnson, Zoe Stewart, David Dayan, Quinn Stone, John Lee, Mitchell LaRocque

Project Description:

- A web application used by sports fans and fantasy sport players/gamblers to find and retrieve specific sports data. Users are able to export sports data for their favorite sports, players, and teams for any season dating back to 1980 across the four major US sports leagues: NHL, NBA, NFL, and MLB. The user can download data, which contains data-specific stats over all base statistics. They can see basic plots between players on the site. After exporting the csv, the user can choose to create graphics or run further data analysis in their favorite spreadsheet editor. Also, users can specify a sport and the names of 2 players to view a graph and a table comparing statistics of the players. Additionally, they can search through an HTML table to find quick stats of current players of football, basketball, hockey, baseball, and soccer. The user can review and redownload their previously downloaded stat files on the site. Furthermore, the user can compile a unique list of their personal “favorite players” to see how they did over their careers and view their athlete profile. Much of the site’s functionality relies on API calls to the sports-reference API in order to retrieve the desired data. This can lead to decreased performance times in certain features (like getting a searchable list of players based on a sports team).

Video Demo: [YouTube Video Demo: Sports Stats Master](#)

Project Tracker: [Link to JIRA Board](#)

Projects / DumpsterDevs-203-4 / D24 board

Backlog

Search [] Filters [] Only My Issues Recently Updated

Share []

Dummy Sprint 0: 2 issues

Profile Creation: Register [] D24-6 []

Profile Creation: Register [] D24-17 []

Profile Creation: 5 issues

Have a general website to interact with and create profiles/logins
277Sep20 8:24 PM - 13Dec20 8:24 PM

- As a user I want to be able to create a profile to store my information. [] Profile Creation: Register [] D24-6 []
- As a user I want to be able to view and edit my profile settings. [] Profile Creation: Register [] D24-17 []
- View Personal Stats in Profile Page [] Profile Creation: Register [] D24-18 []
- As a user I want to be able to create lists of my favorite players. [] Profile Creation: Register [] D24-19 []
- Password Requirements + Registration Page [] Profile Creation: Register [] D24-20 []

Pull and Display Data: 2 issues

Pulling stats and presenting them within the site under various categories (by sport, by betacore.com, etc)

- Make API Calls with sports-reference [] Pull and Display Data [] D24-5 []
- As a user I want to be able to see a certain athlete's stats. [] D24-9 []

Download Sports Data: 1 issue

Ability to export stats through .csv and other file types to get the data they fetched through the web application onto their local machine

- Connect to Player database for each sport [] Download Sports Data [] D24-25 []

Compare and Visualize Data: 5 issues

Ability for users to select a few players of the same sport in order to compare and visualize stats in graph or other format. Maybe be able to do a "5 degrees of Kevin Bacon" type thing between players as well?

- Single Player Stats Chart over date range [] Compare and Visualize [] D24-27 []
- As a user I want to see what relations some stats have with others [] Compare and Visualize [] D24-10 []
- Generate graphs through Chart.js for both team and individual stats [] Compare and Visualize [] D24-24 []
- Athlete Performance Rating Algorithm [] Compare and Visualize [] D24-22 []
- Complete form for sport/criteria selection [] Compare and Visualize [] D24-28 []

Share and Browse Data: 1 issue

Assign unique ID and link to each graph depending on parameters, share to others, track popularity through cookie traffic?

- As a user I want to rank athletes on certain criteria [] Share and Browse Data [] D24-8 []

1 issue Estimate []

VCS: [Link to Github Repo](#)

Contributions: [Link to Contributions on GitHub](#), [More Descriptive Commit List](#)

- **David Dayan**
 - Implemented database and form integration that served the site various features. Created “Download Data” feature with sport-reference API calls, verification of requests, and storage of data information in database. Contributed to “Favorite Players” feature by adding player profile images and general statistics about player. Worked on Flask backend with templating frontend and reorganization to account for SQL-lite DB integration for user-specific information. Also worked extensively with python and python-based sports-reference API.
- **Zoe Stewart**
 - Account, Profile Creation, Favorite Player List, Latest Videos, and Browse Page: Created separate pages for users to view their profile info, a list of favorite players, and an individual player’s statistics. Used flask to integrate the database in order to implement account updating features, and a dynamic table of favorite players. Also created HTML outline using Bootstrap classes for Browse page, and a page with embedded links to the most recent videos from various sports organizations’ Youtube channels.
- **John Lee**
 - Created compare page for comparing 2 players’ statistics. Created form for player names, using regex validators through wtforms library. Built unique player identification string from user input using Python, with exceptions for invalid (Nonetype) players. Optimized functionality by only requesting the 2 players’ data from the library. Used chart.js JavaScript library to create a dynamic graph that can be scaled to compare more than 2 players. Used Pandas to manipulate the data frame to display as a side-by-side HTML table. Used the same technique to display data as a graph and a table in the favorite players page.
- **Quinn Stone**
 - Developed player comparison, performance-driven player search and table for each sport, sport landing pages (NFL, NBA, NHL, MLS, MLB, and Other), search for all players page, and styling across the site
- **Makayla Johnson**
 - Developed registration page. Worked on applying styling to various pages throughout the website. Worked on the sports landing pages along with the separate sports specific pages.
- **Mitch Lacroque**
 - Charting, player comparison

Sep 6, 2020 – Dec 5, 2020

Contributions: Commits ▾

Contributions to master, excluding merge commits



Project Deployment:

- We have used Heroku to host our app. It can be accessed at <https://sportstatsmaster.herokuapp.com/> where you can create an account and try playing with the download data features and even watch youtube videos about your favorite sports!